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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,691

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EXAMINER

YANCHUK, STEPHEN J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,691	Applicant(s) REIJERSE ET AL.	
	Examiner STEPHEN YANCHUK	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/2/2009, 11/05/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 1-13, 21-30, 14-20 & 31-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected product, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 2, 2009.

The applicant's election with traverse of claims 39-45. The applicant did not respond with arguments to rationalize the election with traverse. Without arguments, the examiner upholds the election as proper based on the amendment to the claims that renders the case restrictable. The elements outside of Group III do not comprise a 2 piece top die.

Group I, claim(s) **1-13, 21-30, 44-46**, drawn to a method with a connected die of one un-separated element and clamp element. This group is further subject to a species election of a **temperature, pressure, and material** wherein the temperature and pressure of formation are in accordance with the selected material.

Group II, claim(s) **14-20 & 31-38**, drawn to a separator plate. The plate is

Group III, claim(s) **39-45**, drawn to a method with a two piece die and clamp element wherein the first perimeter section is in two pieces.

Group IV, claim **44-45** are generic to both groups and therefore are incorporated in both elections. The examiner holds that a rejection of either claim 1 or 39 as currently written will also encompass the elements presented in claims 44-46. If the applicant feels this is not the case, then please elaborate in the reply and treat claims 44-46 as a separate group for the election of species.

The arguments submitted below, particularly pertaining to Yoshioka et al (2001/0023603) and Takahashi (EP 1136149) show the teachings pertaining to the teachings of claim 39. The rejection of claim 39 shows the common entities of the

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separable groups are taught. The restriction is maintained since the common elements are taught by Yoshioka.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 39, 40, 43 rejected under 35 U.S.C. 103(a) as being obvious by Yoshioka et al. (PGPUB 2001/0023603).

Claim 39, 40: Yoshioka teaches a hydraulic press machine with upper die with a plurality of concave and convex regions and lower receiving die [Figure 1, Paragraph 16] or one with another embodiment with a female die on top and a blank die on the bottom [Figure 7]. The hydraulic power unit is connected to the bottom of the lower die [Paragraph 17]. A stainless steel plate is loaded between the two die and will become a separator plate with a number of projected sections [Paragraph 15]. The method steps are taught to have the separator plate placed between the upper and lower die [Figure 1], bringing a detached region of the upper die into contact with the lower die [Figure 2], adding fluid to pressurize the bottom side of the plate A [Col 3], Pressing the plate A with the top die while increasing the pressurized fluid from underneath to deform the metal [Figure 3, Col 3].

Although Yoshioka does not teach “after sealing the perimeter about the cavity but prior to contacting the plate with the plurality of recessed sections, **the lower surface of the plate is pressurized to cause the plate to bulge to form a preliminary elongation toward the die with the plurality of recessed sections,**” the bolded section is taught [Col 3, Figure 3(b)]. It would be obvious to re-arrange method steps as evident by MPEP 2144.04 IV C. in order to satisfy this claim limitation. The burden has now shifted to the applicant to show why the method is not obvious and preferential to the prior art by showing unexpected results under the claimed method.

Claim 42: Figure 2 shows plate A being equi-distance to the top plate as the bottom plate. The exact distance is not patentable so slight variation in distance is negated; the claim is interpreted to be the top die not in contact with plate and bottom die not in contact with plate prior to forming the projecting sections.

Claim 41 is rejected under 35 U.S.C. 103(a) as being obvious by Yoshioka et al. (PGPUB 2001/0023603) as applies to claim 39 above, and further in view of Ash [USPAT 5,813,266].

Yoshioka teaches the method of forming a metal separator plate that uses water or hydraulic fluid, but fails to teach the liquid further comprising additives.

Ash teaches a method of plastically deforming metal wherein it is taught that lubricating the outside of the metal is important. Lubricants, bactericides, or rust preventatives are added to the liquid in order to aide in the deformation of the metal [Col 6, Col 10]. It would have been obvious to one of ordinary skill in the art to use the

teachings of Ash because Ash teaches that liquid without lubricants has the potential to limit the ability of the deformed member from completely conforming to the die [Col 10].

Claim 43-45 are rejected under 35 U.S.C. 103(a) as being obvious by Yoshioka et al. (PGPUB 2001/0023603) as applies to claim 39 above, and further in view of Nakata et al. (PGPUB 2001/0028974).

Claim 43-45: Yoshioka teaches a hydraulic press machine with upper die with a plurality of concave and convex regions and lower receiving die [Figure 1, Paragraph 16] or one with another embodiment with a female die on top and a blank die on the bottom [Figure 7]. The hydraulic power unit is connected to the bottom of the lower die [Paragraph 17]. A stainless steel plate is loaded between the two die and will become a separator plate with a number of projected sections [Paragraph 15]. The method steps are taught to have the separator plate placed between the upper and lower die [Figure 1], bringing a detached region of the upper die into contact with the lower die [Figure 2], adding fluid to pressurize the bottom side of the plate A [Col 3], Pressing the plate A with the top die while increasing the pressurized fluid from underneath to deform the metal [Figure 3, Col 3]. Yoshioka fails to teach an additional layer needed for the PEM.

Nakata teaches a separator plate that is press-formed wherein the separator plate comprises multiple layers [Paragraph 95]. These concave and convex portions comprise the a metal layer comparable to Yoshioka's plate A and include conductive coatings which are membranes required for a PEM to operate [Paragraph 95-97]. It would have been obvious for one of ordinary skill in the art to utilize Nakata to modify

Yoshioka because Nakata teaches the separator attributing to a highly durable fuel cell having sufficient cell performance [Paragraph 96].

Response to Arguments

4. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN YANCHUK whose telephone number is

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(571)270-7343. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN YANCHUK/
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795